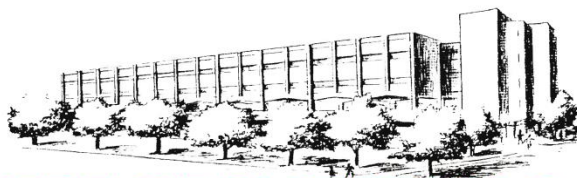


UNIVERSITY OF CONNECTICUT



INSTITUTE OF MATERIALS SCIENCE

POLYMER PROGRAM SEMINAR

“The Power of Mechanism in Rate Enhanced Organocatalytic Polymerization”

**Prof. Matthew Kieseewetter
University of Rhode Island**

**Friday, September 9, 2016
11:00 AM, IMS Room 20**

ABSTRACT

H-bonding catalysts for ring-opening polymerization (ROP) stand out among the highly controlled polymerization methods for their ability to precisely control molecular weight and polydispersity while facilitating the incorporation of functional groups in the monomer feed. The development of organocatalysts for polymerization has largely proceed along divergent pathways towards highly-selective or highly-active catalysts. The exquisite and remarkable combination of rate and selectivity present in other fields (e.g. olefin polymerization catalysis) had not been paralleled in organocatalytic transformations, especially H-bond mediated transformations. Using reaction mechanism as our cue, we have developed an H-bonding catalyst for the ROP of lactone monomers that is among the most active catalysts known for this transformation, yet it is remarkably selective. The age of being forced to choose between a highly-active or highly-selective ROP organocatalyst is over.

**For further information, please contact YH Chudy at younghee.chudy@uconn.edu.*

